

DRAWING AMENDMENTS

Attached are the figures with a replacement sheet for Figure 23.

REMARKS/ARGUMENTS

1. In the above referenced Office Action, the Examiner rejected claims 1, 2, 9, 16, 17, 22, and 23 under 35 USC § 103 (a) as being unpatentable over Wright (U.S. Patent No. 6,313,703) in view of Laroia (U.S. Patent Application No. 2002/0176510); and claim 4 under 35 USC § 103 (a) as being unpatentable over Wright (U.S. Patent No. 6,313,703) in view of Laroia (U.S. Patent Application No. 2002/0176510) in further view of Arntz (U.S. Patent No. 5,646,631). The Examiner has objected to claims 10, 14, and 15 for informalities. The Examiner has objected to claims 5-8, 18-21, and 24-27 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Examiner has allowed claims 28-33. The Examiner also objected to the specification and drawings for informalities. The rejections and objections have been traversed and, as such, the applicant respectfully requests reconsideration of the allowability of claims 1-10 and 14-27.

2. The informalities of the specification and the drawings have been corrected in accordance with the Examiner's suggestions.

3. The informalities of the claims have been corrected in accordance with the Examiner's suggestion.

4. Claims 1, 2, 9, 16, 17, 22, and 23 have been rejected under 35 USC § 103 (a) as being unpatentable over Wright (U.S. Patent No. 6,313,703) in view of Laroia (U.S. Patent Application No. 2002/0176510). The applicant respectfully disagrees with this rejection and the reasoning thereof.

Claim 1 claims a low power transmitter that includes a signal generator, a signal portioning module, a signal processing module, a plurality of amplifiers, and a transmitting module. The signal generator is operably coupled to generate a signal to represent data based on a first aspect of a transmission protocol. The signal partitioning module is operably coupled to partition the signal based on peak-to-average ratio of the

signal to produce a plurality of signal partitions. The signal processing module is operably coupled to process each of the plurality of signal partitions based on a second aspect of the transmission protocol to produce a plurality of processed signal partitions. Each of the plurality of the amplifiers amplifies a corresponding one of the plurality of processed signal partitions to produce a plurality of amplified signal partitions. The transmitting module is operably coupled to transmit the plurality of amplified signal partitions as a composite amplified signal.

Wright teaches a LINC (linear nonlinear component) amplifier 20 that solves the problem of requiring both analog chains (i.e., analog signal paths) to be identical and free from imperfections by providing an adaptive compensation and control scheme to compensate for the differences between the two analog chains. (column 8, lines 22-32) The amplifier 20 includes a signal component separator 11, a digital compensation signal processor 21, a DAC 22, RF up-conversion circuits 23 and 24, two non-linear amplifiers 15 and 16, an amplifier power combining and sampling circuit 25, an RF down conversion circuit 25, an ADC 27, and an adaptive control processing and compensation estimator 28. (column 7, lines 43-51)

Wright teaches that the signal component separator 11 generates two wideband constant amplitude envelope phase varying signals along paths 13 and 14. (column 8, lines 46-48) The DCSP 21 inserts phase rotations, propagation delays, amplitude gains, DC offsets, and IQ cross talk into each of [the signals produced by SCS 11], as required, to correct errors introduced in the analog chains. (column 9, lines 30-34) The APCE 28 is responsible, under all operating conditions, for identifying and maintaining the validity of the compensation parameters that are used by the DCSP 21. (column 10, lines 67, through column 11, line 3) [emphasis added]

As such, Wright is not teaching or suggesting a signal partitioning module that is operably coupled to partition the signal based on peak-to-average ratio of the signal to produce a plurality of signal partitions as in claim 1, but teaches generating two constant

amplitude envelope phase varying signals that are compensated by the DSCP 21 to correct for differences between the two analog chains.

Since Wright does not teach or suggest a signal partitioning module as is claimed in claim 1, combining the teachings of Wright with Laroia as the Examiner has stated fails to render claim 1 obvious.

Claims 2 and 9 are dependent upon claim 1 and introduce additional patentable subject matter. The applicant believes that the reasons that distinguish claim 1 over the present rejection are applicable in distinguishing claims 2 and 9 over the same rejection.

Claim 16 includes the step of partitioning the signal based on peak-to-average ratio of the signal to produce a plurality of signal partitions. As discussed above, Wright does not teach or suggest partitioning the signal based on peak-to-average ratio of the signal to produce a plurality of signal partitions as in claim 16, but teaches generating two constant amplitude envelope phase varying signals that are compensated by the DSCP 21 to correct for differences between the two analog chains.

Since Wright does not teach or suggest partitioning a signal as is claimed in claim 16, combining the teachings of Wright with Laroia as the Examiner has stated fails to render claim 16 obvious.

Claim 17 is dependent upon claim 16 and introduces additional patentable subject matter. The applicant believes that the reasons that distinguish claim 16 over the present rejection are applicable in distinguishing claim 17 over the same rejection.

Claim 22 includes the step of partitioning the signal based on peak-to-average ratio of the signal to produce a plurality of signal partitions. As discussed above, Wright does not teach or suggest partitioning the signal based on peak-to-average ratio of the signal to produce a plurality of signal partitions as in claim 22, but teaches generating two

constant amplitude envelope phase varying signals that are compensated by the DSCP 21 to correct for differences between the two analog chains.

Since Wright does not teach or suggest partitioning a signal as is claimed in claim 22, combining the teachings of Wright with Laroia as the Examiner has stated fails to render claim 22 obvious.

Claim 23 is dependent upon claim 22 and introduces additional patentable subject matter. The applicant believes that the reasons that distinguish claim 22 over the present rejection are applicable in distinguishing claim 23 over the same rejection.

5. Claim 4 has been rejected under 35 USC § 103 (a) as being unpatentable over Wright (U.S. Patent No. 6,313,703) in view of Laroia (U.S. Patent Application No. 2002/0176510) in further view of Arntz (U.S. Patent No. 5,646,631). The applicant respectfully disagrees with this rejection and the reasoning thereof.

Claim 4 is dependent upon claim 1 and introduces additional patentable subject matter. The applicant believes that the reasons that distinguish claim 1 over its rejection are applicable in distinguishing claim 4 over the same rejection.

For the foregoing reasons, the applicant believes that claims 1-10 and 14-33 are in condition for allowance and respectfully request that they be passed to allowance.

The Examiner is invited to contact the undersigned by telephone or facsimile if the Examiner believes that such a communication would advance the prosecution of the present invention.

RESPECTFULLY SUBMITTED,

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CERTIFICATE OF MAILING

37 C.F.R. 1.8

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Aiane Hudson

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